

Notes Multiplying Mixed Numbers

Method 1:

- Multiply the whole #s
- Multiply the whole # by the fraction
- Add pieces together

Method 2:

- Turn mixed # into an improper fraction
- Multiply
- Simplify

Ex:

$$2 \times 3\frac{1}{2}$$

$$\begin{array}{r} 2 \times 3 = 6 \\ + 2 \times \frac{1}{2} = 1 \\ \hline (7) \end{array}$$

$$2 \times \frac{7}{2} = (7)$$

$$16 \times 2\frac{5}{8}$$

$$\begin{array}{r} 16 \times 2 = 32 \\ + 16 \times \frac{5}{8} = 10 \\ \hline (42) \end{array}$$

$$\frac{2}{16} \times \frac{21}{8} = (42)$$

$$14 \times 3\frac{3}{7}$$

$$\begin{array}{r} 14 \times 3 = 42 \\ + 14 \times \frac{3}{7} = 6 \\ \hline (48) \end{array}$$

$$\frac{2}{14} \times \frac{24}{7} = (48)$$

↑ ↑

2 different methods.
You choose ☺



Mental math is a handy tool in the kitchen. Often we want to change a recipe to make more or less. For example . . .

To make 4 loaves, how much of each ingredient do I need?

Dates?

$$4 \times 1\frac{1}{4} \text{ cups}$$

$$4 \times (1 + \frac{1}{4})$$

$$= 4 + 1 = 5 \text{ cups}$$

Water?

$$4 \times \frac{3}{4} = 3 \text{ cups}$$



DATE BREAD (1 loaf)

Dates, cut up	$1\frac{1}{4}$ cups
Boiling water	$\frac{3}{4}$ cup
Baking soda	1 tsp
Eggs	1
Brown sugar	$\frac{3}{4}$ cup
Salt	$\frac{3}{4}$ tsp
Vanilla	1 tsp
Flour	$1\frac{3}{4}$ cups
Baking powder	1 tsp
Chopped nuts	$\frac{1}{2}$ cup
Melted butter	$\frac{3}{8}$ cup

For mixed numbers, try multiplying in parts.

TRY THESE IN YOUR HEAD.

How much would you need of each ingredient?



4 loaves

8 loaves

16 loaves

	DATES	WATER	SODA	EGGS	SUGAR	SALT	VANILLA	FLOUR	B. POWDER	NUTS	BUTTER
4 loaves											
8 loaves											
16 loaves											

POWER BUILDER A

Vegetable Stir Fry
(serves 3 people)

- $\frac{3}{4}$ pounds of fresh shrimp
- $\frac{1}{4}$ cup sliced carrots
- $\frac{2}{3}$ cup chopped broccoli
- $1\frac{1}{2}$ T of finely diced onion
- $1\frac{1}{4}$ cups sliced squash
- $\frac{1}{2}$ cup mushrooms
- $2\frac{1}{3}$ tsp soy sauce
- 1 T cornstarch
- $\frac{1}{8}$ tsp garlic powder
- $2\frac{1}{2}$ T oil

Double the recipe.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

About how much
for 12 people?

11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

**THINK IT
THROUGH**



Which is more: triple two-thirds or
double three-fourths?

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POWER BUILDER B

Trail Mix

- $\frac{1}{2}$ cup shredded coconut
- $\frac{2}{3}$ cup sunflower seeds
- $1\frac{1}{4}$ cups raisins
- $\frac{2}{3}$ cup pecans
- $\frac{1}{3}$ cup chopped walnuts
- $\frac{1}{2}$ cup peanut butter
- $\frac{3}{4}$ cup honey
- $2\frac{1}{3}$ cups oats
- $1\frac{1}{2}$ tsp vanilla
- $1\frac{1}{4}$ tsp cinnamon

Double the recipe.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Triple the recipe.

11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

**THINK IT
THROUGH**



Which is more: triple two-fifths or
double three-eighths?

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Name_____Date_____Block_____

Scaling Recipes

I have a recipe for Apple-Cranberry bread that I like to make in the Fall. This recipe makes one loaf.

I decided the bread was so good that I should bake 2 loaves so I have one to share. Please **double** the recipe.

- 2 eggs → _____ eggs
- 3/4 cup sugar → _____ cups sugar
- 2 tablespoons canola or vegetable oil → _____ Tbs oil
- 1 1/2 cups all-purpose flour → _____ cups flour
- 1 1/2 teaspoons baking powder → _____ tsp baking powder
- 1 teaspoon ground cinnamon → _____ tsp cinnamon
- 1/2 teaspoon baking soda → _____ tsp baking soda
- 1/2 teaspoon salt → _____ tsp salt
- 2 cups chopped, peeled tart apples → _____ cups apples
- 1 cup fresh or frozen cranberries → _____ cups cranberries
- 1/2 cup chopped walnuts → _____ cup(s) walnuts

I have some leftover ingredients and would like to make a mini-loaf to have for breakfasts. Please cut the recipe in **half**.

- 2 eggs → _____ eggs
- 3/4 cup sugar → _____ cups sugar
- 2 tablespoons canola or vegetable oil → _____ Tbs oil
- 1 1/2 cups all-purpose flour → _____ cups flour
- 1 1/2 teaspoons baking powder → _____ tsp baking powder
- 1 teaspoon ground cinnamon → _____ tsp cinnamon
- 1/2 teaspoon baking soda → _____ tsp baking soda
- 1/2 teaspoon salt → _____ tsp salt
- 2 cups chopped, peeled tart apples → _____ cups apples
- 1 cup fresh or frozen cranberries → _____ cups cranberries
- 1/2 cup chopped walnuts → _____ cup(s) walnuts